Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (canceled)

2. (currently amended) A diagnostic system having a biochip readout apparatus, comprising:

a biochip readout device including:

biochip cartridge ~~shaped as a rotatable disc, wherein a biochip is installed on or within the disc~~ comprising: an optical disc in which at least one or more depressed portions are formed, wherein a bio-chip formed by spotting bio-cells is installed in each depressed portion, and the biochip includes a fixing member thereunder such that the biochip cannot be separated from the optical disc when an optical disc is rotated or moved or the biochip is combined with another substrate thereon, wherein the optical disc is coated with a selective wavelength reflection film on the lower surface of the optical disc;

a disc rotation drive unit driven such that the biochip cartridge is rotated;

~~a light reception means for receiving a beam reflected from the disc, the light reception means having a light source scanning the disc with the beam;~~

a system and output controlling unit for outputting monitoring bio analysis information, the system and output controlling unit having a signal processing unit for

processing and analyzing the bio analysis signal corresponding to bio analysis information to generate the monitoring analysis information;

a focusing/tracking controlling unit for controlling a focusing and tracking operation using the beam received by the light reception means;

an optical pick-up unit having an objective lens drive unit for tracking a focus and track of the light source;

an optical pick-up device having a bio analysis signal generation unit for receiving a light excited by the biochip and outputting a bio analysis signal; and

~~a system and output controlling unit for outputting monitoring bio analysis information, the system and output controlling unit having a signal processing unit for processing and analyzing the bio analysis signal corresponding to bio analysis information to generate the monitoring bio analysis information;~~

an optical recording/reproducing unit for recording a recording bio analysis signal in a predetermined area of the biochip cartridge in response to a control signal of the system and output controlling unit and reproducing recorded biochip analysis information;

a mode selection unit for selecting one of a biochip readout mode and a general optical recording/reproducing mode; and

a diagnosis device for comparing the monitoring bio information for monitoring image signal from the biochip readout device with reference data and proving an analysis result generated based on a result of the comparing operation to a user,

wherein the reference data for monitoring bio-information of the biochip are constructed in database format in the diagnosis device.

3. (canceled)

4. (currently amended) The biochip readout device as set forth in claim [[1]] 2, wherein the bio analysis signal generation unit of the optical pick-up device scans the biochip cartridge with light in response to a control signal inputted from the system and output controlling unit, in case that the optical pick-up device has a single light source, and, at the same time, outputs a focusing/tracking controlling signal and the bio analysis signal caused by the light excited by the biochip.

5. (canceled)

6. (currently amended) The biochip readout device as set forth in claim [[2]] 4 , wherein the system and output controlling unit forms a matrix structure such that a cell revealing florescent dye is recognized as a letter of A and other cells are recognized as a letter of .~A, and generates monitoring bio analysis information based on the matrix structure.

7. (previously presented) The biochip readout device as set forth in claim 6, wherein the bio analysis signal generation unit comprises:

an excited florescence filter for filtering an excited florescence wave of lights excited by the biochip; and

an excited florescent wave head for outputting the bio analysis signal based on detection of the filtered excited florescence wave in response to the control signal inputted from the system and output controlling unit.

8-11. (canceled)

12. (currently amended) The apparatus as set forth in claim [[10]] 7, wherein the bio-cell spotted on the optical disc is formed by a bio cell patterning device, the patterning device including:

a servo device for rotating the optical disc at a predetermined speed;

a printer including a pin module for patterning bio-cell in a bio-cell patterning area on the upper surface of the biochip cartridge in response to a control signal inputted from the outside; and

a controlling unit for controlling the entire system such that the servo device can be driven to rotate the optical disc under user control and bio cell pattern can be printed on the optical disc through the pin module.

13. (previously presented) The apparatus as set forth in claim 12, wherein the pin module of the bio cell patterning device is formed as a structure such that bio cell is formed

on the entire optical disc for one rotation of the optical disc or as a structure such that bio cell is formed on the entire optical disc for a half rotation of the optical disc.

14. (currently amended) The apparatus as set forth in claim [[12]] 13, wherein the controlling unit controls the servo device to rotate the optical disc at a constant angular velocity such that bio-cells are formed by the printer as the bio-cells are aligned widely from the inner circle towards the outer circle or the servo device to rotate the optical disc with a constant linear velocity such that bio-cells are formed by the printer with the same interval along the inner/outer circle.

15. (currently amended) The biochip readout system as set forth in claim [[1]] 14, further comprising a communication device for transmitting an analysis processing request data together with the monitoring image signal thereto after inputting the monitoring image signal to analyze bio-matter from the biochip readout device and connecting communication lines thereto based on predetermined communication connection information.

16-25. (canceled)